www.nextgenscience.org/



www.k12.wa.us/CoreStandards/





www.k12cs.org/frameworkstatements-by-grade-band//



K-12 Computer Science Framework

www.careertech.org/caree r-technicaleducation/cctc/info.html

Learning that works for America

CCTC Common Career Technical Core

www.p21.org/overview/sk ills-framework 2 1st CENTURY SKILLS



Science and Engineering Practices

- S1. Asking questions (for science) and defining problems (for engineering)
- S2. Developing and using models
- S3. Planning and carrying out investigations
- S4. Analyzing and interpreting data
- S5. Using mathematics and computational thinking
- S6. Constructing explanations (for science) and designing solutions (for engineering)
- S7. Engaging in argument from evidence
- S8. Obtaining, evaluating, and communicating information

Mathematical Practices

- M1. Make sense of problems and persevere in solving them
- M2. Reason abstractly and quantitatively
- M3. Construct viable arguments and critique the reasoning of others
- M4. Model with mathematics
- M5. Use appropriate tools strategically
- M6. Attend to precision
- M7. Look for and make use of structure
- M8. Look for and express regularity in repeated reasoning

English Language Arts Practices

- E1. They demonstrate independence
- E2. They build strong content knowledge
- E3. They respond to the varying demands of audience, task, purpose, and discipline
- E4. They comprehend as well as critique
- E5. They value evidence
- E6. They use technology and digital media strategically and capably
- E7. They come to understanding other perspectives and cultures

Computer Science Practices

- CS1. Fostering an Inclusive Computing Culture
- CS2. Collaborating Around Computing
- CS3. Recognizing and Defining Computational Problems
- CS4. Developing and Using Abstractions
- CS5. Creating Computational Artifacts
- CS6. Testing and Refining Computational Artifacts
- CS7. Communicating About Computing

Career Ready Practices

- Act as a responsible and contributing citizen and employee.
- 2. Apply appropriate academic and technical skills.
- Attend to personal health and financial well being.
- 4. Communicate clearly, effectively and with reason.
- 5. Consider the environmental, social and economic impacts of decisions.
- 6. Demonstrate creativity and innovation.
- 7. Employ valid and reliable research strategies.
- 8. Utilize critical thinking to make sense of problems and persevere in solving them.
- Model integrity, ethical leadership and effective management.
- 10. Plan education and career path aligned to personal goals.
- 11. Use technology to enhance productivity.
- 12. Work productively in teams while using cultural/global competence.

Skills

Creativity and innovation
Critical thinking and
problem solving
Communication and
collaboration

2. Information, Media and Technology

Information literacy
Media literacy
Information, communications
and technology literacy

3. Life and Career

accountability

Flexibility and adaptability Initiative and self-direction Social and cross-cultural skills Productivity and

Core Subjects and 21st Century

Themes

Leadership and responsibility

Global awareness
Financial, economic,
business and entrepreneurial
literacy
Civic literacy
Health literacy
Environmental literacy